

DARPA Grand Challenge 2005

Site Visit Frequently Asked Questions April 21, 2005

DARPA Grand Challenge 2005 Site Visits – Frequently Asked Questions

I notice that the 25 mph speed limit is not included in the updated site visit instructions. Is it still in effect?

The 25 mph speed limit is still in effect.

We have been testing with a human rider in our autonomous vehicle for safety purposes. Are we allowed to have a rider during the site visit?

We agree safety is important during the site visit. Although a rider-less vehicle is preferred for officiating purposes, a rider may be used if required for safety purposes. For purposes of fairness, teams with riders in their vehicles should be prepared to employ a procedure that enables the DARPA site visit team to ensure there is no intervention during the run.

Is the "optional" run really optional?

The vehicle's performance (ability to stay within the course, ability to avoid obstacles, and speed) during the optional run will be used in the selection process in situations where teams with very similar dynamic assessment results on the 200m course need to be compared and ranked. A great optional run will not substitute for poor performance in the three required dynamic assessment runs, and the optional run cannot be substituted for the required runs.

How will the site visits be scored? Should I emphasize speed over obstacle avoidance?

Vehicle speed is just one evaluation factor. The abilities to stay within the course boundaries and avoid obstacles are the other evaluation factors in the dynamic assessment portion. Teams should prepare their vehicles to stay within the course boundaries, avoid obstacles, and complete the course as quickly as possible within the 25 mph speed limit.

The first site visit instructions said we needed to provide barriers, and the second instructions leave it up to our safety officer to decide. Do we need to provide barriers?

DARPA is not in a position to make a general determination that covers all situations. Since safety is the responsibility of each team, each team must determine whether barriers are needed for the dynamic assessment runs. DARPA's goal is to stress the importance of establishing safety plans so the site

visit can occur without incident. Barriers are not required if, without barriers, a team determines that it can provide a safe environment for all observers and that it can provide DARPA visitors the ability to observe the entire course.

We cannot fit the required run in our test area. What should we do?

Teams should do what they can to comply with the course requirements given in the site visit instructions. If complete compliance is not possible, teams should point out the nonconforming aspects to the site visit team for consideration, including situations where the team designed a more difficult course to fit within a test area.

Will we get extra points for our site visit if we make the course especially difficult, with sharp turns or steep grades, for example?

The difficulty of the course will be taken into consideration in scoring the site visit.

Is there any additional information we can provide that will help DARPA make an accurate determination?

Teams may bring supporting information that describes how they will prepare, test, transport, and operate their vehicles at the National Qualification Event and the Grand Challenge Event. This information can include team member skills, test plans, schematics, procedures, program management plans, budgets, sponsor information, or other any additional information that would help DARPA better understand a team's personnel, planning and resources, procedures, software and sensor integration, and the vehicle's ability to traverse long distances across difficult desert terrain.

Is the terrain for the site visit course restricted? Is an off-road demonstration favored over a demonstration on pavement?

The terrain for the site visit course is not restricted. Teams should use a course that satisfies the rules, is safe to operate on, and best demonstrates their vehicles' capabilities.

May we use obstacles other than 32- gallon trash cans on our course?

DARPA requires each team provide two empty 32-gallon trash cans for the required runs. For the optional run, teams may use other obstacles.

Does DARPA allow TV and media coverage of the site visit?

DARPA does not restrict media coverage of the site visit; however, we require notification of the media presence in advance of the site visit. It is each team's responsibility to ensure spectators and media do not interfere with the site visit.

Are there any limitations to how sharp the vehicle turns can be? Can they be too sharp?

The vehicle must change bearing by at least 30 degrees to the right and to the left. The turning radius and the maximum bearing change are unrestricted.

Can I select a certain date and time for my site visit?

DARPA site visit teams will contact each team to provide the date and time of the site visit. Specific scheduling questions should be addressed to the DARPA site visit team.

May I change the location of my site visit?

Site visit location change requests should be made to the DARPA site visit team directly. Although local requests can generally be accommodated, other changes are discouraged.

General Information www.darpa.mil/grandchallenge

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